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The Interaction Between Characteristic
Locus of Control and Control of Events
on the Perceived Stress of Events

A Thesis
Presented to
the Faculty of the School of Education
Morehead State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts

by
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July 7, 1984

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Accepted by the faculty of the School of Education,
Morehead State University, in partial fulfillment of the
requirements for the Master of Arts degree.

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July 7, 1984
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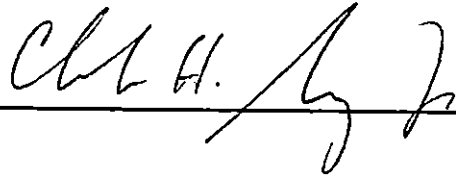
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The Interaction Between Characteristic
Locus of Control and Control of Events
of the Perceived Stress of Events

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Morehead State University, 1984

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A handwritten signature in dark ink, appearing to read "C. H. Harrison", is written over a horizontal line.

This research focussed on the relationship between locus of control, characteristic control of life events, and life stress. Life stress was measured by the college modified form of the Social Readjustment Rating Scale. Locus of control was determined by Rotter's I-E Scale and characteristic control of events was measured by the Controlability of Events Scale, an instrument designed for this study.

A sample of 143 undergraduate student volunteers, enrolled in introductory psychology courses, completed the three instruments.

An analysis of the data indicated that there was a small but significant correlation between locus of control and controlability of events. Correlations between locus of control and life stress and between controlability of events and life stress were not significant.

Using 82 subjects and 14 events that were labeled as "internal" or "external", according to scores from the two measures of control, the interaction between locus of control and controlability of life events did not significantly affect evaluations of life stress. Furthermore, locus of control had no main effect on life stress. However, controlability of events did have a significant main effect on life stress, for this group of subjects and events.

The results, examined in relation to other research in the area of control and stress, suggest that locus of control may not be a useful construct for measuring an individual's evaluations of control. Control characteristics as they relate to specific events might be a more useful framework for measuring control.

Accepted by:

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CHAPTER 1

Introduction

The concept of stress and man's ability to cope with stress has captivated the interest of many people at both professional and personal levels. Stress first became recognized as an important factor in modern psychology largely on the basis of research conducted by Hans Seyle in the 1950's. Seyle conceived of stress as the "common, nonspecific response to the demands and wear and tear of whatever happens to a living being" (Seyle, 1956, p. 399). Using this general definition, a variety of studies have been conducted to determine the effects of stress on physiological disorders (ie. hypertension, ulcers, etc.) and psychological disorders (i.e. depression, schizophrenia, etc.). In each of these studies Seyle's general conception of stress has been defined in a more limited and observable manner. In each case the technique used for evaluating stress indicates a more precise, study specific, definition of stress. Regardless of the technique used to measure life stress, and despite the consistent and statistically significant positive correlations be-

tween life stress and physical and psychological illness, the relationship has never proven a heuristic one. Still there appears to be enough evidence to indicate that life stress is related to illness.

In order to clarify how life stress is related to illness, other possible mediating variables, including personality factors, sex and race, have been included in more recent studies. For example, the personality variable locus of control (Rotter, 1966) has been identified in several studies as a contributory factor in this relationship. Miller (1979) has identified the controlability of events as another variable that may be related to life stress. Unlike Rotter's conception of control, controlability of events is a control characteristic of particular events rather than a trait of the person.

This study was designed to investigate a possible relationship between locus of control, perceived controlability of events and life stress. The following literature review will delineate the development of life stress scales, the relationship between these scales and the occurrence of illness, the relationship between life stress and locus of control and the relationship between controlability of events and life stress.

CHAPTER II

Literature Review

The earliest research on the effects of stressful life events was conducted in the 1950's by Hinkle, Seyle, Wolff and associates. As a medical student, Seyle made the observation that stress appeared to produce physical symptoms in experimental animals, which resulted in dysfunction and finally death. Based on these observations, Seyle (1956) conducted a number of studies, using animals, that focused on the physiological effects of induced stress. In these studies he demonstrated a series of specific physiological changes which reliably occurred in many species in response to a variety of stressors, including extreme temperatures, pain, infectious organisms and induced sleeplessness. Seyle named this series of physiological changes the General Adaptation Syndrome (G.A.S.). According to Seyle, the G.A.S. is comprised of three stages. The first is the Alarm stage. This is the body's initial reaction to a stressor and includes such changes as a startle response, increased heart rate and pupil dilation. At this time, the body's resistance

level is low. The second stage of adaptation is Resistance. In this stage, the body attempts to repel or compensate for the intrusion of the stressor. With continued exposure to a stressor the body adapts to the stressor. The characteristic signs of the Alarm stage disappear but the level of resistance is above normal. Following continued exposure to the same stressor the third stage, Exhaustion, begins. During this stage the body's ability to maintain the high levels of resistance diminishes. The signs of the Alarm stage reappear, but are now irreversible and the individual can die.

Applying the concept of G.A.S. to humans, a number of researchers (Hinkle & Wolff, 1958; Hinkle, Christenson, Kane, Ostfeld, Thetford & Wolff, 1958) reported a positive correlation between descriptions of the way people evaluated events in their lives and their physical health. Indeed, their studies indicated that life events perceived as stressful preceded approximately 30% of all episodes of physical illness in their research populations. The findings of Hinkle and his associates were interesting, but had little utility in the health care field since there was no way to measure how much and/or what kind of stress was related to the onset of illness.

Life Stress Scales

Perhaps the first attempt at systematically measuring the stressful nature of life events was the Schedule of Recent Experiences (S.R.E.), conceptualized from observations made of life changes in tuberculosis patients being readmitted to the hospital (Hawkins, Davies & Holmes, 1957). A number of life events seemed to appear recurrently in the recent life histories of patients being readmitted. These items made up the S.R.E., a scale designed to predict the onset of "illness". This scale contains 43 items, all equally weighted in predicting the onset of "illness". This scaling system, therefore, assumes the unlikely position that all life events present individuals with identical amounts of stress. Rahe, Meyer, Smith, Kjaer and Holmes (1964), studied samples of patients with five different medical syndromes and two control groups. Again, it was the occurrence of the S.R.E. events that differentiated patients with a history of relapse from patients who did not relapse. However, the predictive accuracy of the S.R.E. was less than desirable. The S.R.E. scale assumed that each event would affect an individual in an identical manner, each providing the same amount of life stress.

Holmes and Rahe (1967), in an attempt to further refine the S.R.E., devised the Social Readjustment Rating Scale (S.R.R.S.). This scale is a self report questionnaire which was designed to quantify the amount of overall stress experienced by a person during a specific time period. Subjects were requested to rate the amount of social readjustment each event would require in their lives. Social Readjustment, by definition, indicates "the intensity and length of time necessary to accommodate to a life event, regardless of the desirability of the event" (Holmes & Rahe, 1967, p. 213). The S.R.R.S. is constructed of the 43 items taken from the S.R.E. Implementing a ratio-scaling technique developed by Stevens (1966), arbitrarily anchoring the event of a marriage at a value of 500 "Life Change Units" (L.C.U.), each of these events was rated by a population of "normal" individuals and norms were established for this population.

This scaling system allowed the differentiation of the amount of expected impact each event would have on the cumulated stress for individuals of such a population. The number of L.C.U.'s are totaled for all the events and an individual can then be compared with subject-appropriate norms. Elevated scores are considered

7
indicative of stressful life styles. This technique has been used, with limited success, to predict the onset of illness for individuals with elevated scores (Rahe, 1967, 1972, 1974).

Research with the S.R.R.S. has been completed with samples of Americans, Danes, Swedes, English, New Zealanders and Cuban exiles. Research with these populations have shown a high degree of cross-cultural agreement in the rating of events ($r = .75$ to $r = .89$) (Masuda & Holmes, 1967; Komarkoff, Masuda & Holmes, 1968; Rahe, 1969; Herman, Masuda & Holmes, 1969; Rahe, Lundberg, Bennet & Theorell, 1971; Lauer, 1973; Isherwoods & Adams, 1976; Valdes & Baxter, 1976)

A modified form of the original scale has been developed in order to more accurately identify stressful life events for college students (Bieliauskas & Webb, 1974). This form contains the 43 original items, reworded to be more relevant to the college population, plus 3 items not found on the original scale. This scale has been used in a number of studies using college students (Gilbert, 1976; Morgan, 1979).

The usefulness and construct validity of the S.R.R.S., in any form, may only be determined by it's ability to predict clinical descriptions of individuals.

More specifically, this is done by correlating an individual's S.R.R.S. score with various indicies of the occurrence of illness and/or aid-seeking behavior. Literature addressing this aim, will be reviewed in the following section.

Life Stress Scales and Illness

Several studies have reported significant positive correlations between the occurrence of life events and physical and/or psychological illness. For example, Justice, McBee and Allen (1977) found a significant association between S.R.R.S. scores and clinical assessments of psychological functioning. Similarly, Myers, Linderthal, Pepper and Ostrander (1972), Liao (1977), and Herbert (1978) all reported significant correlations between stressful life events being reported in a person's life and the presence of some type of psychological symptoms. Schwartz and Myers (1977) also reported a positive correlation between life events and illness, but this correlation was larger in samples showing non-psychotic illnesses. In recent research, Murphy and Brown (1980) found a pattern of stressful life events preceeding the onset of psychological disturbance which in turn preceeded the occurrence of physical illness.

Other studies have focused on particular types of disorders or "illness", usually psychological in nature. Tennant, Bebbington and Hurry (1977), Bejaminsen (1981) and Gong-Guy and Herman (1980) all focused on the occurrence of depressive disorders. While finding a significant correlation between S.R.R.S. scores and the occurrence of depressive disorders, they felt that the stress scales and stress research needed to be refined in terms of their ability to clearly define relationships.

In research undertaken with populations presenting symptoms of schizophrenia, Brown and Birley (1968) found a positive relationship between the occurrence of stressful life events and psychological disturbance. With similar populations it appeared that an increase in stressful life events resulted in an increase in relapse (Bell, Wareit & Holzer, 1975; Birley, 1972; Brown, 1972; Brown, Skair, Harris & Birley, 1973; Myers, Linderthal, Pepper & Ostrader, 1972; Smith, 1971; Wildman, 1974; Holzer, 1977; Leff, Hirsch, Gaiind, Rohde & Steven, 1973).

Rabkin and Strunning (1976) reviewed 56 articles examining the relationship between life stress and illness. They concluded that although there appears to be a significant relationship between life events and the onset or relapse of various "illnesses", this relation-

ship only accounts for a small portion of the variance in illness behavior. Andrews and Tennant (1978) reviewed 30 articles focusing on the relationship between life stress and psychiatric illness. The three categories of psychiatric illness that they examined were "depression", "schizophrenia" and "neurosis". Only two articles of the 30 reviewed had been included in Rabkin and Strunning's (1976) review, yet their conclusion was the same. For each category of illness there was a significant positive correlation between life events and illness but this relationship accounted for only 10% of the variance in illness behavior.

The lack of refinement in the scales may be responsible for the finding that significant correlations between S.R.R.S. scores and illness account for only a small percentage of the variance in illness behavior. It may be the case that these scales are not focusing accurately on the causal components of illness. There are other factors that have not yet been recognized or included in the evaluation of life events. Two possible factors that may clarify the relationship between life events and illness are a person's evaluation of the events and an individual's perceived locus of control.

Evaluation of Life Events

How an individual evaluates life events appears to have an important role in the usefulness of the S.R.R.S. since it is primarily a self report instrument. Several studies have determined that a person's evaluation of the severity of the life events correlates more positively with the onset of illness than simply the presence of the events themselves (Anderson & Pleticha;, 1974; Dresler, Donovan & Geller, 1976; Schless, Teichman, Nendels & DiGiacoma, 1977; Redfield & Stone, 1979; Knapp, 1979). From similar results, Gong-Guy and Herman (1980) suggested that there might be a particular way in which individuals perceive and attach meaning to events that may have a closer correlation with the onset of depression than simply whether or not a person has experienced an event. In interview sessions, depressed persons were found to characterize the most disturbing life events as internal, intended, global, expected and stable. In addition, Paykel and his associates (Paykel, 1974; Paykel, Prusoff & Uhlenhuth, 1971; Paykel, Prusoff & Myers, 1975; Paykel & Tanner, 1976) had earlier reached similar conclusions, suggesting that psychiatric disturbance, particularly depression, was more closely related to the perceived distress of the situation rather than to the

actual occurrence of the life events. Consequently, Paykel et. al. (1971) revised some of the items on the S.R.R.S. and changed the instructions so that subjects were to rate how upsetting they felt each situation would be for the average person. This allowed more flexibility for subjects to rate the events, thus increasing subjectivity and providing more utility to the scale for assessments of life events on an individual basis. This modification has been adopted in the life stress research, even though there has been no research directly comparing the results of evaluations using both sets of instructions.

Hudgens (1974) found that patients with symptoms of depression made evaluations of their own life stress that were more severe than evaluations family members made of the patients' life events. He suggested that longitudinal studies be undertaken in an attempt to remove the confounding effect of past experience on present life situations. He feels that there may not only be a relationship of events affecting the illness history of a person, but that the illness history of a person may be influencing how that person perceives the stress in their life. Other researchers have also questioned the accuracy of retrospective studies.

Jenkins, Hurst and Rose (1979) questioned the use of a retrospective scale that asks a person to remember more than 6 months into the past. Their research indicates that people can only remember into the past accurately for about this length of time. However, even a person's distortion of past events might contribute to the amount of life stress they experience from these events. Whether evaluations of past events accurately describe a person's history, of more importance is how well these evaluations and memories correlate with illness in a person's life.

Another factor affecting the correlation between life events and illness may be personality. Personality factors may mediate the relationship between life stress and illness. Individuals with different personality traits may evaluate life events in different ways. One personality trait that has received a great deal of attention in the research on life stress and illness is locus of control.

Life Stress and Locus of Control

The theoretical construct of locus of control has been investigated in order to determine if this factor might have a mediating effect on the relationship between life events and illness. Theoretically, individuals

could view their world as being internally controlled or externally controlled. Individuals with an internal locus of control presumably perceive themselves as being responsible for and in control of events in their lives, while individuals with an external locus of control presumably perceive fate or other powerful people as responsible for the occurrence of events taking place in their lives. Using the notion that locus of control is a "style" that people use as a reference for the way they view events occurring in their world, Rotter (1966) developed a forced choice instrument, containing 29 items, that was designed to assess and determine an individual's characteristic style. Construct validity data from two studies (Seeman & Evans, 1962; Rotter, Liverant & Crowne, 1961) were used in selecting items for the scale, comparing Rotter scores with observed behavior of both hospital patients and individuals working experimental tasks. The scale is a general measure that samples a variety of areas in a person's life including, interpersonal, school, government, work, and politics. It does appear that locus of control is representative of an individual's evaluation of their own ability to control their environment at a given time. Research has been undertaken to determine how this evaluative set

might affect the way a person responds to stressful life situations.

Several investigators have reported a positive correlation between elevated evaluations of life stress and an external locus of control style. Johnson and Sarason (1977) reported a positive correlation between S.R.R.S. events that represent negative life changes and an "external" style, as determined by the Rotter scale. This correlation was established for a population of both males and females. Crandall and Lehman (1977) also found that recent negative life events correlated positively with symptoms of "maladjustment" and external locus of control. These findings are not without contradictions. Toves, Schill and Ramanaiah (1981) found a positive correlation between negative life events and an external locus of control for males. However, these two variables were not significantly correlated for females. This suggests that the relationship between locus of control and stressful life events is not clearly understood.

It also appears that the examination of other variables is important in defining the relationship between locus of control and life stress. Other researchers have made attempts to determine the relationship between locus of control and life stress, yet this literature reveals

little consistency. For example, Wolk and Bloom (1977) reported that the task performance of subjects with an internal locus of control was not affected in a high stress situation, whereas subjects characterized as external showed decrements in their performance under the same high stress situation. Manack, Hinricksen and Ross (1975) reported that under low levels of stress, individuals with an internal locus of control tended to seek treatment at a counseling facility less than individuals with an external locus of control. However, under situations described as "high stress" there did not appear to be any difference in the two groups. Gilbert (1976) found that individuals with an internal style would begin to adapt an external style as life stress increased, possibly as a way of tolerating these life situations. Gilbert suggested that stress might be an interface between a characteristic style of internality and a situational condition of externality.

These findings challenge Rotter's model of locus of control as a stable personality trait and suggest that not only is the relationship between locus of control and life stress unclear, but that the concept of locus of control, itself, is not clearly understood. Through continued use with other instruments and new conceptual

models, these existing constructs and their relationships may become clear. While there appears to be continued research with stress and individuals' perceived control style, at least one researcher has suggested that control may not be a perceived characteristic of an individual but a perceived characteristic of life events.

Life Stress and Controlability of Events

Miller (1979) focused research on the control characteristic of life events rather than an individual's characteristic pattern of perceived control. She concluded that individuals prefer to be in situations which are controllable, and that these situations appear to be less arousing. Since individuals appear to have the ability to rate, with acceptable consistency, the amount of readjustment required by particular S.R.R.S. events, it was speculated that individuals might also be capable of rating the amount of control they perceive to have over S.R.R.S. events.

Perceived control of S.R.R.S. events can be measured by presenting subjects with the S.R.R.S. items and asking them to indicate the amount of control they have over each event using a 7-point Likert-type scale (Likert, 1932) where 1 indicates exclusive individual control and 7 indicates control by others or fate. This newly

designed scale will be referred to as the Controlability of Events Scale (C.E.S.). A measure of internal consistency for the C.E.S. is included in the analysis of scale results. A mean score derived from the 46 C.E.S. scores, for each individual, would be indicative of a characteristic perception of the world similar to the Rotter I-E scores. Whether control is perceived as characteristic of a person or a characteristic of an event it would appear that measures of either would be indicative of a person's view of the world, what Frank (1976) labels a person's "assumptive world".

Rather than attempting to replace the concept of locus of control with the concept of controlability of events, it might be important to understand the relationship between the two types of perceptions of control. If both a situation and an individual can be evaluated for control characteristics, as either internal or external, it might be that a person who characteristically perceives their world as being controlled internally or externally may find life events that match their characteristic perception of control less arousing and less stressful than events with perceived control characteristics that do not match their perceived control characteristics since these latter events are in conflict with the

personal perception with which that person organizes his/her life. It may also be that a person's beliefs and desires about their own ability to control situations and about the control certain events appear to have, affect both representations of control. This might take the form of a stressful experience produced by the difference in what control a person perceives they have and what control he/she would prefer to have. A relationship between locus control, controlability of events and perceived stress of events is of importance since the perception of the stressfulness of life events has been correlated positively with the occurrence of illness in peoples' lives, and the control variables may account for some of the variance still unaccounted for in this relationship.

Hypotheses

The present study was designed to determine if an interaction between a person's locus of control and the degree of control a person feels he or she has over a particular event affects the amount of life stress a person perceives this same event to present. Following from the discussion of the Rotter I-E Scale, which is designed to measure a person's characteristic style of perceiving control, the Controlability of Events Scale,

which is designed to measure an individual's perception of control in particular events, and the Social Readjustment Rating Scale, which is designed to measure an individual's perception of upset for particular events, the following hypotheses are proposed:

Hypothesis 1: There will be a statistically significant positive correlation between the mean Controlability of Events Score and Rotter I-E score.

Hypothesis 2: There will be a significantly greater perceived upset reported for events in which an individual's characteristic locus of control differs from the perceived controlability of that event.

CHAPTER III

Method

Subjects

The subjects were student volunteers, ranging in age from 18 to 33 ($M = 20.4$), enrolled in Introductory Psychology courses at Morehead State University, in the Spring Semester of 1983. There were 114 females and 29 males.

Procedure

After assembling for usual class sessions, students were presented with the option of participating in a research project. Participants each received five separate handouts, one at a time. The first handout was an Informed Consent form, which outlined research procedures and explained subjects' rights (Appendix I).

The second form distributed was a Background Information Questionnaire (Appendix II). This form required a brief demographic description from each of the subjects.

The third form, a college modified Social Readjustment Rating Scale (Bieliauskas and Webb, 1974; see Appendix III), was distributed to all individuals after

the first two forms had been collected. The instructions asked each subject to rate how much upset each of 46 events would cause in their life. Ratings were made on a 100 point scale, with 0 representing minimal upset and 100 representing maximum upset.

The fourth form, a Rotter Internal-External Locus of Control Scale (Rotter, 1966; see Appendix IV), was distributed to each subject after they completed and returned the previous form.

The fifth form distributed, as the previous form was collected, was the Controlability of Events Scale (Appendix V). The instructions asked subjects to rate the amount of control they perceived themselves to have over the occurrence of each life event. Ratings were made on a 7-point Likert-type scale, with 1 representing a situation that is totally under the individual's control and 7 representing a situation that is always controlled by fate. All subjects were debriefed about the nature of the research in class sessions after the entire data collection process was completed.

CHAPTER IV

Results

Using the Kuder-Richardson test (Anastasi, 1976) it was determined, for this study, that the C.E.S. has a split-half reliability of .90. This signifies that 81% of the variance in the C.E.S. scores depends on the true variance in the control characteristics of the events and 19% depends on the error variance. Therefore, the C.E.S. appears to have sufficient reliability to assume that individuals can rate events in a consistent manner.

A Pearson r correlation between the Rotter I-E scores and mean C.E.S. scores was performed in order to test the first hypothesis. This procedure indicates that individual's locus of control (internal vs. external) and their evaluation of the controllability for events (internally controlled vs. externally controlled) were significantly correlated in a positive manner ($r(1,142) = .31, p = .0062$).

As a way of comparing each of the two control scales' relatedness to evaluations of life stress, Pearson r correlations between Rotter I-E scores and

S.R.R.S. scores and between C.E.S. scores and S.R.R.S. scores were performed. These procedures indicated that a correlation between Rotter I-E scores and mean S.R.R.S. scores, for all subjects, was not significant ($r(1,142) = .05$, $p = .54$). Likewise, a correlation between mean C.E.S. scores and mean S.R.R.S., for all subjects, indicated that these scores were not significantly correlated ($r(1,142) = .11$, $p = .199$).

The second hypothesis stated that there would be a significantly greater amount of upset reported for events in which an individual's characteristic locus of control differs from the perceived controllability of that event. In preparation for testing the second hypothesis the Rotter I-E scores were divided into three categories. Divisions were made at the 25th and 75th percentiles. Subjects who had a Rotter I-E score ranging below the 25th percentile were categorized as "internalizers". There were forty subjects who met this criterion. Subjects who had a Rotter I-E score above the 75th percentile were categorized as "externalizers". There were 42 subjects who met this criterion. The 61 subjects whose scores fell between the 25th and 75th percentiles

were dropped from the analysis since their performance could not be characterized by either extreme style.

The events on the C.E.S. were also divided into three groups by using the mean scores that each event received from the subjects' ratings. These mean scores represent how controllable, all the subjects, as a group, evaluated each of the 46 events to be. On the 7-point Likert-type scale, events with scores of 2.5 or below were labeled as events characteristically evaluated as controlled by a person in the situation. Using this criterion, nine events were labeled as internally controlled and are presented in Table 1. On the C.E.S., events with mean scores of 5.5 or greater were labeled as events externally controlled by fate or powerful others. According to this criterion, there were five events that were labeled externally controlled and are presented on Table 2. The 32 items with a mean score between 2.5 and 5.5 were labeled as items that did not have a characteristic style or were so ambiguous that a control characteristic could not be clearly determined. These items were dropped from the analysis.

In order to determine whether or not the two locus of control groups' mean stress scores differed significantly with internally or externally controlled

events, a one-between and one-within ANOVA was performed. Locus of control (internalizers vs. externalizers) was the between factor, and controllability of events (internally controlled items vs. externally controlled items) was the within factor.

Table 3 presents the mean stress scores for each identified group. The one-between and one-within ANOVA indicates that the main effect of locus of control was not significant, $F(1,80) = .13$, $p = .72$. The main effect of controllability of events was significant $F(1,80) = 490.27$, $p = .0001$. The interaction effect of locus of control and controllability of events was not significant, $F(1,80) = 1.30$, $p = .29$. Thus, it appears that perceived life stress is more related to perceived controllability of events rather than to characteristic internal or external locus of control. Table 4 includes the mean C.E.S. scores and mean S.R.R.S. scores for each event.

Table 1
C.E.S. Internally Controlled Events

Events	Mean Controlability Score
Minor violations of the law (traffic tickets, jay walking, disturbing the peace, etc.).....	2.00
Being pregnant and unmarried (if female).....	2.39
Becoming involved with drugs or alcohol...	2.26
Major changes in social activities (clubs, dancing, movies, visiting, etc.).....	2.37
Getting married.....	2.08
Moving to a new college or university.....	2.34
Outstanding personal achievement.....	1.97
Failure of a course in school.....	2.22
Starting a new job.....	2.25

Note: Mean score range = 1.0 to 2.5

Table 2
C.E.S. Externally Controlled Events

Events	Mean Controlability Score
Death of a close friend.....	5.90
Death of a brother or sister.....	5.88
Having a physical deformity from birth which is visible to others.....	6.01
Death of a parent.....	6.11
Death of a grandparent.....	5.94

Note: Mean score range = 5.5 to 7.0

Table 3
Mean Perceived Stress Scores of
Internally and Externally Controlled Events
for Internalizers and Externalizers

Group	<u>n</u>	Controlability of Events	
		Internally Controlled	Externally Controlled
Internalizers	40	49.1399	84.2862
Externalizers	42	48.3684	87.0714

Note: Maximum mean score = 100.

Table 4
Mean C.E.S. Scores and
Mean S.R.R.S. Scores

Events	Mean C.E.S. Scores	Mean S.R.R.S. Scores
Being fired from work, or expelled from school.....	2.57	77.7
Death of a close friend.....	5.90	90.3
Minor violations of the law (traffic tickets, jay walking, disturbing the peace, etc.).....	2.00	35.2
Brother or sister leaving home (marriage, attending college, etc.)..	4.55	30.6
Loss of job by one of your parents...	4.48	57.8
Being pregnant and unmarried (if female).....	2.39	81.3
Major change in vocational plans.....	2.55	39.4
Divorce of parents.....	4.68	82.0
Major change in number of family get-togethers (a lot more or a lot less than usual).....	3.71	25.9
Marital separation of parents.....	4.58	76.0
Acquiring a visible deformity.....	5.27	81.2
Becoming involved with drugs or alcohol.....	2.26	69.6
Jail sentence of parent for one year or more.....	4.46	88.0

Table 4 (continued)

<u>Events</u>	<u>Mean C.E.S. Scores</u>	<u>Mean S.R.R.S. Scores</u>
Major change in social activities (clubs, dancing, movies, visiting, etc.).....	2.37	34.1
Change in residence (moving to a new address).....	2.39	37.9
Fathering an unwed pregnancy.....	2.78	74.0
Death of a brother or sister.....	5.88	94.1
Change in being accepted by peers..	3.31	61.0
Discovery that you were an adopted child.....	4.79	56.3
Marriage of a parent to a step- parent.....	4.37	53.6
Birth of a brother or sister.....	4.58	22.0
Your being put in jail or other institution.....	2.67	87.1
Mother beginning to work.....	4.01	15.3
Having a physical deformity from birth which is visible to others...	6.01	68.9
Death of a parent.....	6.11	96.1
Getting married.....	2.08	36.5
Pregnancy of wife (if married) or yourself (if you are a married woman).....	2.52	35.9
Serious illness requiring hospitalization of a parent.....	5.36	85.1

Table 4 (continued)

<u>Events</u>	<u>Mean C.E.S. Scores</u>	<u>Mean S.R.R.S. Scores</u>
Jail sentence of a parent for 30 days or less.....	4.66	75.8
Breaking up with "steady" boyfriend or girlfriend.....	3.31	70.6
Major change in parents' financial status.....	4.61	61.0
Pregnancy of unwed teenage sister..	4.58	74.2
Moving to a new college or university.....	2.34	44.5
Increase in number of arguments with parents.....	3.03	64.1
Increase in number of arguments between parents.....	4.26	70.1
Death of a grandparent.....	5.94	79.8
Outstanding personal achievement...	1.97	22.8
Sexual problems or difficulties....	3.51	67.0
Change in father's occupation requiring increased absence from home.....	4.68	48.2
Major change in church activities (lot more or a lot less than usual)	2.56	35.9
Addition of a third adult to family (grandparent, etc.).....	4.08	37.2
Decreased number of arguments with parents.....	2.58	12.2

Table 4 (continued)

<u>Events</u>	<u>Mean C.E.S. Scores</u>	<u>Mean S.R.R.S. Scores</u>
Decreased number of arguments between parents.....	3.70	11.8
Failure of a course in school.....	2.22	74.9
Starting to work at a new job.....	2.25	46.2

CHAPTER V

Discussion

The results indicated a small, but significant, correlation between the C.E.S. and the Rotter I-E scores. This finding indicates that there is a tendency for individuals to make similar evaluations of control they experience in their lives' using these two scales, and is consistent with the first hypothesis. However, the relatively small correlation between these two variables suggests that the C.E.S. and Rotter I-E scores are not identically representative of a person's "assumptive world". Even though both scales are theoretically designed to measure a person's "assumptive world" they may be focusing on different aspects of this world perspective. The C.E.S. scale is comprised of items that are of an interpersonal and academic nature. In contrast, the Rotter I-E scale was designed as a general instrument and includes not only items that are of an interpersonal or academic nature but also items that are political and occupational. It may be that if each scale was limited to particular kinds of items, the relatedness

may increase. An analysis of this nature was not included in this study.

The second hypothesis predicted that there would be greater upset reported for an event in which an individual's characteristic locus of control differs from the perceived controllability of that event. The interaction of these two types of control did not affect the evaluation of perceived life stress.

In testing this hypothesis, it was found that locus of control had no main effect on the perceived life stress of the 14 events that were labeled characteristically as either internally or externally controlled. Likewise, a correlation between locus of control and perceived life stress of all the S.R.R.S. events was not significant. These findings indicate that there is no significant relationship between a person's evaluation of the control they perceive themselves to have, in general, and their evaluation of perceived life stress. These findings are inconsistent with the findings of Johnson and Sarason (1977) and Crandell and Lehman (1977), who found a positive correlation between elevated S.R.R.S. scores and external locus of control scores. Toves, et. al. (1981) found this same result but only with male

subjects. Compared with the results of this study it is apparent that there is a great deal of discrepancy over the role locus of control plays in the evaluation of life stress. If the Rotter I-E Scale is actually measuring a stable personality trait, as Rotter (1966) suggests, it might be expected that measurements of this trait would be related to an individual's perception of their world, including stressful life events, in a more consistent manner. An inspection of the Rotter I-E Scale reveals that it may not be capable of producing highly reliable measurements. The Rotter I-E Scale, according to Phares (1976), has an internal consistency of only .65 to .79. Test-retest reliability falls between .49 and .84, depending on the length of time between administrations. Although Rotter (1966) has introduced locus of control as a personality trait or "characteristic style", the test-retest reliability data and the discrepant conclusions about the relationship between life stress and locus control, suggests that this "characteristic style" is not stable over time. Indeed, using the Rotter I-E Scale, Gilbert (1976) found that individuals with an "internal style" began to adopt an "external style" as life stressors increased. The concept of control may be related to the way individuals evaluate and experience

stress in their life, however, because of the Rotter I-E Scale's questionable reliability and Rotter's questionable assumption that control is a stable personality trait, it may not be the most suitable instrument for measuring an individual's experience of control.

Like locus of control, a correlation between C.E.S. and the perceived life stress of all S.R.R.S. events was not significant. However, the controlability of events did have a main effect on the evaluation of perceived life stress, when the analysis was limited to the 14 events that were labeled characteristically as being controlled internally or externally. These findings indicate that items receiving evaluations of extreme controlability have some quality that distinguishes them from the rest of the events and which determines the significant relationship between controlability and stressfulness. An obvious distinction between these few events and the remainder of the items on the C.E.S. is their extreme control quality. Possibly, if the C.E.S. and S.R.R.S. are comprised of more events that could easily and reliably be categorized as having either internal or external control, one could determine if this characteristic alone had a significant relationship to perceived stress. However, there may be other qualities that the

14 events with extreme control characteristics have that significantly increase their relatedness to perceived life stress.

An examination of the events with extreme control characteristics reveals some apparent likenesses that may be significantly related to perceived life stress. The "externally controlled" events might be viewed as having irreversible and extreme consequences. Four of the five events involve the death of a significant other. The fifth item in this group involves having a physical deformity from birth, which might be interpreted as permanent. The nine "internally controlled" events are all events that present situations with many possible outcomes that could be altered regardless of the origin of the event itself. These items, also present situations that might be considered considerably less tragic than the "externally controlled" events. Therefore, it appears that the significant difference between "internally controlled" events and "externally controlled" events may not be due to difference in control characteristics.

Despite the similar and different qualities of these events, of more importance is that the evaluation of control was made in reference to the particular events

and not as a global dispositional trait. If a relationship between an individual's evaluation of control of events and their evaluation of life stress is to be established, measurements made in reference to life events may provide more valuable information than measurements of disposition. Furthermore, a small sample of life events, such as the S.R.R.S. provides, may not provide adequate coverage of likely stressful events for making assessments of control and its effects on stress in an individual's life. A selection of more commonplace events to be used in the evaluation process may assist in clarifying any existing relationship between control of life events and their stressfulness.

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APPENDIX I

INFORMED CONSENT FORM/PROCEDURES OF RESEARCH

Informed Consent Form

This is to certify that I, _____, hereby volunteer to participate in a research project as an authorized part of an educational and research program of Morehead State University entitled The Interaction Between Personal Locus of Control and Control of Events on the Perceived Stress of Events, under the supervision of Jeffrey Harrison.

This investigation and the participant's part in the investigation have been defined and fully explained by Jeffrey Harrison and I understand his explanation.

The procedures of this research project and their risks are described on the back of this form and have been discussed in full detail with me.

I have been given an opportunity to ask whatever questions I may have had and all such questions and inquiries have been answered to my satisfaction.

I understand that any data or answers to questions will remain confidential with regard to my identity.

I understand that I am free to deny to answer any specific items or questions in interviews or questionnaires.

I certify that, to the best of my knowledge and belief, I have no physical or mental illness or weakness that would cause risk during participation in this investigation.

I further understand that I am free to withdraw my consent and terminate my participation at any time.

Date

Participant's Signature

Procedures of Research

This research project has been designed to use a number of questionnaires and scales in order to gather information about life events and perceptions of those events. The instruments being used are either standardized instruments or scales adapted from standardized instruments.

Upon an individual's consent, they will be presented with four questionnaires. These questionnaires will be distributed separately. Each questionnaire will be explained orally. All questions will be answered after instructions have been explained. There will be no time limit placed on individuals to complete the questionnaires.

To the best of the researcher's knowledge, there are no risks involved for individuals in the project. If at any time participants feel that the information asked of them presents a risk for them, it is suggested that this be made known to the researcher and the individual not proceed with the study.

APPENDIX II
BACKGROUND INFORMATION

Background Information

Name: _____

Sex: Male____ Female____ Date of Birth:____/____/____

Race: Black____ White____ Other_____

Major:_____ Years of School: 12 13 14 15 16+

Marital Status: Single Married Divorced Widowed

Separated

APPENDIX III
COLLEGE-MODIFIED SOCIAL READJUSTMENT RATING SCALE

Please read each of the following statements carefully. Each one presents a situation, some of which you may have experienced and others you may not have experienced. On a scale from 0 to 100, indicate the amount of upset each one of these situations would create in your life. A score of 0 would indicate that there would be no upset associated with this event or situation. A score of 100 would indicate that there would be the maximum amount of upset associated with this event or situation. Rate each statement independently of each other.

1. Being fired from work, or expelled from school.....
2. Death of a close friend.....
3. Minor violations of the law (traffic tickets, jay walking, disturbing the peace, etc.).....
4. Brother or sister leaving home (marriage, attending college, etc.).....
5. Loss of job by one of your parents.....
6. Being pregnant and unmarried (if female).....
7. Major change in vocational plans.....
8. Divorce of parents.....
9. Major change in number of family get-togethers (a lot more or a lot less than usual).....
10. Marital separation of parents.....
11. Acquiring a visible deformity.....
12. Becoming involved with drugs or alcohol.....
13. Jail sentence of parent for one year or more.....
14. Major change in social activities (clubs, dancing, movies, visiting, etc.).....
15. Change in residence (moving to a new address).....

16. Fathering an unwed pregnancy.....
17. Death of a brother or sister.....
18. Change in being accepted by peers.....
19. Discovery that you were an adopted child.....
20. Marriage of a parent to a step-parent.....
21. Birth of a brother or sister.....
22. Your being put in jail or institution.....
23. Mother beginning to work.....
24. Having a physical deformity from birth which is
visible to others.....
25. Death of a parent.....
26. Getting married.....
27. Pregnancy of wife (if married) or yourself (if you
are a married woman).....
28. Serious illness requiring hospitalization of a
parent.....
29. Jail sentence of a parent for 30 days or less.....
30. Breaking up with "steady" boyfriend or girlfriend....
31. Major change in parents' financial status.....
32. Pregnancy of unwed teenage sister.....
33. Moving to a new college or university.....
34. Increase in number of arguments with parents.....
35. Increase in number of arguments between parents.....
36. Death of a grandparent.....

- 37. Outstanding personal achievement.....
- 38. Sexual problems or difficulties.....
- 39. Serious illness requiring hospitalization of a
brother or sister.....
- 40. Change in father's occupation requiring increased
absence from home.....
- 41. Major change in church activities (lot more or a
lot less).....
- 42. Addition of a third adult to family (grandparent,
etc.).....
- 43. Decreased number of arguments with parents.....
- 44. Decreased number of arguments between parents.....
- 45. Failure of a course in school.....
- 46. Starting to work at a new job.....

APPENDIX IV
ROTTER I-E SCALE

Please answer these items carefully but do not spend too much time on any one item. Be sure to find an answer for every choice. For each numbered question make an X on the line beside either the a or b, whichever you choose as the statement most true.

In some instances you may discover that you believe both statements or neither one. In such cases, be sure to select the one you more strongly believe to be the case as far as you're concerned. Also try to respond to each item independently when making your choice. Try not to be influenced by your previous choices.

Select the alternative which you personally believe to be more true.

I more strongly believe that:

1. a. Children get into trouble because their parents punish them too much.
 b. The trouble with most children now a days is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
 b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
 b. There will always be war, no matter how hard people try to prevent them.
4. a. In the long run people get the respect they deserve in this world.
 b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

5.
 - a. The idea that teachers are unfair to students is nonsense.
 - b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
6.
 - a. Without the right breaks one cannot be an effective leader.
 - b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7.
 - a. No matter how hard you try some people just don't like you.
 - b. People who can't get others to like them don't understand how to get along with others.
8.
 - a. Heredity plays the major role in determining one's personality.
 - b. It is one's experiences in life which determine what they are like.
9.
 - a. I have often found that what is going to happen will happen.
 - b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10.
 - a. In the case of the well-prepared student there is rarely, if ever, such a thing as an unfair test.
 - b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11.
 - a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
 - b. Getting a good job depends mainly on being in the right place at the right time.

12. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case, getting what I want has little or nothing to do with luck.
b. Many times we might just as well decide what to do by flipping a coin.
16. a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b. By taking an active part in political and social affairs, the people can control world events.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There is really no such thing as "luck".

19. a. One should always be willing to admit mistakes.
b. It is usually best to cover up one's mistakes.
20. a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
21. a. In the long run, the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or, all three.
22. a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.
23. a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard I study and the grades I get.
24. a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
25. a. Many times I feel that I have little influence over the things that happen to me.
b. It is important for me to believe that chance or luck plays an important role in my life.
26. a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.

- 27. a. There is too much emphasis on athletics in high school.
- b. Team sports are an excellent way to build character.
- 28. a. What happens to me is my own doing.
- b. Sometimes I feel that I don't have have enough control over the directions my life is taking.
- 29. a. Most of the time I can't understand why politicians behave the way they do.
- b. In the long run, the people are responsible for bad government on a national as well as on a local level.

APPENDIX V
CONTROLABILITY OF EVENTS SCALE

Please read each of the following statements carefully. Each one presents a situation, some of which you may have experienced and others you may not have experienced. On a scale from 1 through 7, indicate how much control do you believe you would have over the events or situations. Using the scale presented below, rate each of the events or situations independently of each other.

Always under one's control	Usually under one's control	Usually fate controlled.	Always fate controlled
Almost always under one's control	Sometimes under one's control, and sometimes fate controlled	Almost always fate controlled	
1. Being fired from work, or expelled from school.....			
2. Death of a close friend.....			
3. Minor violations of the law (traffic tickets, jay walking, disturbing the peace, etc.).....			
4. Brother or sister leaving home (marriage, attending college, etc.).....			
5. Loss of job by one of your parents.....			
6. Being pregnant and unmarried (if female).....			
7. Major change in vocational plans.....			

8. Divorce of parents.....
9. Major change in number of family get-togethers (a lot more or a lot less than usual).....
10. Marital separation of parents.....
11. Acquiring a visible deformity.....
12. Becoming involved with drugs or alcohol.....
13. Jail sentence of parent for one year or more.....
14. Major change in social activities (clubs, dancing, movies, visiting, etc.).....
15. Change in residence (moving to a new address).....
16. Fathering an unwed pregnancy.....
17. Death of a brother or sister.....
18. Change in being accepted by peers.....
19. Discovery that you were an adopted child.....
20. Marriage of a parent to a step-parent.....
21. Birth of a brother or sister.....
22. Your being put in jail or other institution.....
23. Mother beginning to work.....
24. Having a physical deformity from birth which is visible to others.....
25. Death of a parent.....
26. Getting married.....
27. Pregnancy of wife (if married) or yourself (if you are a married woman).....
28. Serious illness requiring hospitalization of a parent

29. Jail sentence of a parent for 30 days or less.....
30. Breaking up with "steady" boyfriend or girlfriend...
31. Major change in parents' financial status.....
32. Pregnancy of unwed teenage sister.....
33. Moving to a new college or university.....
34. Increase in number of arguments with parents.....
35. Increase in number of arguments between parents.....
36. Death of a grandparent.....
37. Outstanding personal achievement.....
38. Sexual problems or difficulties.....
39. Serious illness requiring hospitalization of a
brother or sister.....
40. Change in father's occupation requiring increased
absence from home.....
41. Major change in church activities (lot more or a lot
less than usual).....
42. Addition of a third adult to family (grandparent,
etc.).....
43. Decreased number of arguments with parents.....
44. Decreased number of arguments between parents.....
45. Failure of a course in school.....
46. Starting to work at a new job.....